

Work Order ID 83741

April-24-12 1:27:42 PM

ASAP

83741

Page 1

Item ID: D3562-041

Accept

N900040100

Setup Start

NS1

Revision ID:

Stop

NS2

Item Name: Step Assembly, LH

Start Date: 24/04/2012 Start Qty: 4.00

4

Cust Item ID:

Required Date: 08/05/2012 Req'd Qty: 4.00

4

Customer:

Reference:

Approvals:

Process Plan: *MLJ*

Date: *12/04/12*

Tooling:

Date:

Run Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

| Sequence ID/ Work Center ID | Operation Description | Set Up/ Run Hours | Tool ID | Tool # | Plan Code | Accept Qty | Reject Qty | Reject Number | Insp. Stamp |
|--------------------------------|--------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|
|--------------------------------|--------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|

Draw Nbr

Revision Nbr

D3562

Rev E

100

0.00

100

Large Fab

Large Fab

Memo

0.00

Large Fab

1-Cut D2622 extrusion as per Dwg D3562
2-Deburr and bevel ends for welding

Drill holes for arms.

110

QC6- Inspect dimensions to drawing

0.00

110

QC

Memo

0.00

Quality Control

120

Chemical Conversion Coat per QSI005 4.1

0.00

120

HandFinish

Memo

0.00

Hand Finishing

(4)

Ø

12.05.02

4

Ø

12.05.02

(4)

2/12/5-2

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | |
| | | | | | | | |

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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NOTE: Date & initial all entries

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Revision ID:
Item Name: Step Assembly, LH

Accept

N900040100

Setup Start ***NS1***

Stop ***NS2***

Start Date: 24/04/2012 Start Qty: 4.00 ***4***
Required Date: 08/05/2012 Req'd Qty: 4.00 ***4***

Cust Item ID:

Customer:

Reference:

Approvals: Process Plan: Date: Tooling: Date:
QC: Date: SPC (Y/N): Date:

Run Start ***NR1***

Stop ***NR2***

| Sequence ID/ Work Center ID | Operation Description | Set Up/ Run Hours | Tool ID | Tool # | Plan Code | Accept Qty | Reject Qty | Reject Number | Insp. Stamp |
|--------------------------------|--|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|
| 130 | QC3- Inspect Part Finish | 0.00 | | | | 4 | 0 | | 12.05.08 |
| *130* | | | | | | | | | |
| QC | Memo | 0.00 | | | | | | | |
| Quality Control | | | | | | | | | |
| 140 | | 0.00 | | | | 4 | 0 | | 12.05.08 |
| *140* | | | | | | | | | |
| Small Fab | Small Fab | 0.00 | | | | | | | 12.05.08 |
| Small Fab | Memo | | | | | | | | |
| | 1-Transfer drill Rivet holes as per dwg D3562. | | | | | | | | |
| | 2-Touch-up rivet holes with alodine as per dwg d3562 | | | | | | | | |
| | 3-Rivet legs using Magnabond as per dwg D3562. | | | | | | | | |
| | *****Ensure to wipe off any excess magnobond ***** | | | | | | | | |
| | A/R Magnabond 6398 Batch: <u>1120666</u> | | | | | | | | |
| 150 | QC5- Inspect part completeness to step on W/O | 0.00 | | | | | | | |
| *150* | | | | | | | | | |
| QC | Memo | 0.00 | | | | | | | |
| Quality Control | | | | | | | | | |

5 n 105106

44

| W/O: | | WORK ORDER CHANGES | | | | | |
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Page 3

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Tooling:

Date:

Run Start ***NR1***

QC:

Date:

SPC (Y/N):

Date:

Stop ***NR2***

| Sequence ID/ Work Center ID | Operation Description | Set Up/ Run Hours | Tool ID | Tool # | Plan Code | Accept Qty | Reject Qty | Reject Number | Insp. Stamp |
|--------------------------------|--------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|
|--------------------------------|--------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|

160

160

Large Fab

Large Fab

Large Fab

Memo

1-Weld end caps as per Dwg d3562 & QSI 004. Inspect for foreign objects as per QSI 024.

A/RAluminum Rod M119785
2-Grind end cap welds flush as per Dwg D3562

0.00

0.00

0.00

0.00

0.00

0.00

170

170

QC

Quality Control

QC10- Inspect visual per QSI004- ground welds

Memo

180

180

QC

Quality Control

QC5- Inspect part completeness to step on W/O

Memo

4 ϕ 12 12.05.09
12.05.09

8/2/10

8/2/10

44
6H

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4

Cust Item ID:

Required Date: 08/05/2012 Req'd Qty: 4.00

4

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start ***NR1***

QC:

Date:

SPC (Y/N):

Date:

Stop ***NR2***

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

190

Chemical Conversion Coat per QSI005 4.1

0.00

190

HandFinish

Memo

0.00

Hand Finishing

4X ~~✓~~ M-L 12/05/10

200

White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum

0.00

200

Powdercoat

Memo

0.00

Powder Coating

START TIME: 1:00

OVEN TEMPERATURE: 320

FINISH TIME: 1:30

1:00 320 1:30

210

Wing Walk as per dwg QSI005 4.4 Batch 121505

0.00

210

HandFinish

Memo

0.00

Hand Finishing

4X ~~✓~~ M-L 12/05/10

H. ~~✓~~ 12-5-10.

M121134

| W/O: | | WORK ORDER CHANGES | | | | | |
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Page 5

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Start Date: 24/04/2012 Start Qty: 4.00

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Cust Item ID:

Required Date: 08/05/2012 Req'd Qty: 4.00

4

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start ***NR1***

QC:

Date:

SPC (Y/N):

Date:

Stop ***NR2***

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

220

QC3- Inspect Part Finish

0.00

220

QC

Memo

0.00

Quality Control

4x

12/06/13

230

Identify as per dwg & Stock Location: *G-A*

0.00

230

Packaging

Memo

0.00

Packaging

4x

12/06/13

240

QC21- Final Inspection - Work Order Release

0.00

240

QC

Memo

0.00

Quality Control

12/06/14
MLJ 12/06/13

| W/O: | | WORK ORDER CHANGES | | | | | |
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NOTE: Date & initial all entries

Picklist Print

April-24-12 1:27:45 PM

Page 1

Work Order ID: 83741

83741

Parent Item: D3562-041

D3562-041

Parent Item Name: Step Assembly, LH

Start Date: 24/04/2012

Required Date: 08/05/2012

Start Qty: 4.00

Required Qty: 4.00

Comments: IPP Rev:A New Issue 06-11-09 JLM
IPP rev B ECN 987 07.10.09 EC verified by: DD
IPP Rev:C ECN1048 07-12-18 DD verified by:ec
IPP Rev:D 08-07-28 add chemical conversion coat DD verified by:EC

| Component Item ID/ Item Name | Replacement Item ID | Mfg/ Purch | Bin Item | Primary Location | Last Location | Route Seq ID | Unit of Measure | Qty on Hand | Qty per Kit | Total Qty | Qty Issued | Date Issued | Status |
|---------------------------------|------------------------|---------------|-------------|---------------------|------------------|-----------------|--------------------|----------------|-------------|--------------|---------------|----------------|--------|
| D2622-120C | | Manufactured | No | | | 100 | Each | 129.7300 | 1 | 4 | | | |

D2622-120C

Step Extrusion

**

Ac 12.05.01

| Location | Loc Qty | Loc Code |
|----------|---------|----------|
| HALL | 16.37 | |
| 46910 | 2 | |
| 64409 | 6 | |
| 66970 | 7.7 | |
| 68293 | 0.25 | |
| 72131 | 0.42 | |
| WA | 104 | |
| 81507 | 104 | |
| WA013 | 9.36 | |
| 75781 | 2 | |
| 77612 | 7.36 | |

D2734

Manufactured No

140

Each

53.0000

2

8

**

PL 12.05.09

| Location | Loc Qty | Loc Code |
|----------|---------|----------|
| WA | 53 | |
| 76985 | 25 | |
| 80682 | 28 | |

D3560-041

Manufactured No

140

Each

0.0000

1

4

**

~~B801123~~ Ac 12.05.01

D3560-041

Arm Weldment

B81123 → ③

B80259 → ①

~~B80259~~ ①

| W/O: | | WORK ORDER CHANGES | | | | | |
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Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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NOTE: Date & initial all entries

Picklist Print

April-24-12 1:27:45 PM

Page 2

Work Order ID: 83741

83741

Parent Item: D3562-041

D3562-041

Parent Item Name: Step Assembly, LH

Start Date: 24/04/2012

Required Date: 08/05/2012

Start Qty: 4.00

Required Qty: 4.00

D3560-043

Manufactured No

140

Each

0.0000

1

4

D3560-043

Arm Weldment

**

B81125 (4) Ae 12.05.01

MS20600-AD4W5

Purchased No

160

Each

475.0000

32

128

MS20600-AD4W5

Blind Rivet

**

Ae 12.05.08

Location

Loc Qty

Loc Code

ST321

475

121255

275

121349

200

(128)

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
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NOTE: Date & initial all entries

D3562-1, MAKE FROM EXTRUSION D2622

D3560-043 ARM WELDMENT

D3560-041 ARM WELDMENT

D3560-042 ARM WELDMENT

D3560-044 ARM WELDMENT

D3562-1, MAKE FROM EXTRUSION D2622

2
APPLY BLACK ANTI-SKID ON TOP SURFACE TO BOTTOM OF TOP RADIUS

2
APPLY BLACK ANTI-SKID ON TOP SURFACE TO BOTTOM OF TOP RADIUS

TRANSFER DRILL #30 DEBURR & TOUCH UP HOLES WITH CHEMICAL CONVERSION COAT BEFORE RIVETING (32 PLACES PER STEP)

REFER TO STEP END DETAIL

INSTALL MS20600AD4W5 RIVET (32 PLACES PER STEP)

4.30 71.707 9.15 (REF)
85.15

MEASURED BEFORE END CAPS WELDED IN PLACE

FWD

9.15 (REF) 71.707 4.30
85.15

MEASURED BEFORE END CAPS WELDED IN PLACE

FWD

ROUND CORNER OF EXTRUSION TO MATCH BEND RADIUS OF END PLATE

NOTE: ALL WELDS SHALL BE 100% VISUALLY INSPECTED BY A QUALIFIED INSPECTOR PER DART QSI 004

D2734 END PLATE (TYP 2 PLACES)

TYPICAL STEP END DETAIL
SCALE 1:2

D3562-041 LH STEP ASSEMBLY

D3562-042 RH STEP ASSEMBLY

NOTES:

1) MATERIAL: N/A

2) FINISH:

i) CHEMICAL CONVERSION COAT STEP EXTRUSION

PER DART QSI 005 4.1 BEFORE ASSEMBLY

ii) POWDER COAT ASSEMBLY GLOSS WHITE (4.3.5.1) OR GREY SANDTEX (4.3.5.6) OR BLACK SANDTEX (4.3.5.7) OR GREEN SANDTEX (4.3.5.8) PER DART QSI 005 4.3

iii) BLACK ANTI-SKID PAINT PER DART QSI 005 4.4

3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED

4) UNITS: INCHES UNLESS OTHERWISE NOTED

5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX

6) IDENTIFICATION: NONE

7) WEIGHT: 8.79 lbs

8) INSTALL ARM WELDMENTS WITH A LAYER OF MAGNOBOND 6398 BETWEEN THE ARM WELDMENT AND STEP EXTRUSION. FILL ANY TOOLING HOLES WITH MAGNOBOND 6398. CLEAN OFF EXCESS BEFORE POWDER COATING.

9) WELDING: PER DART QSI 004

| QTY -041 | QTY -042 | P/N | DESCRIPTION |
|----------|----------|--------------|------------------|
| X | X | D3562-041 | LH STEP ASSEMBLY |
| | | D3562-042 | RH STEP ASSEMBLY |
| 1 | | D3560-041 | ARM WELDMENT |
| | 1 | D3560-042 | ARM WELDMENT |
| 1 | | D3560-043 | ARM WELDMENT |
| | 1 | D3560-044 | ARM WELDMENT |
| 32 | 32 | MS20600AD4W5 | RIVET |
| 2 | 2 | D2734 | END PLATE |

| | | | |
|------|---|----|----------|
| E | ADD QTY (2) TO D2734 END PLATE ON D3562-042 | PH | 08.01.11 |
| D | REMOVE D2808 SPACER NOTE; REDRAWN IN SOLIDWORKS | DC | 07.11.16 |
| C | NOW MAGNOBOND, ADD D2808, REMOVE 4 RIVETS | CP | 07.06.19 |
| B | ARMS NOW RIVETED TO STEP | CP | 07.01.15 |
| A | NEW ISSUE | CP | 06.09.26 |
| REV. | DESCRIPTION | BY | DATE |

| | | | | |
|---|----------|---|----------------------|------------------------|
| DESIGN | 90 | DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA | DRAWING NO. D3562 | REV. E SHEET 1 OF 1 |
| DRAWN | SE | | | |
| CHECKED | LE | | | |
| MFG. APPR. | MD | | | |
| APPROVED | MD | | | |
| DE APPR. | MD | | | |
| DATE | 08.01.11 | STEP ASSEMBLY SCALE 1: | | |
| COPY RIGHT © 2006 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD. | | | | |

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UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 83791 MLJ
12/04/24

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
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